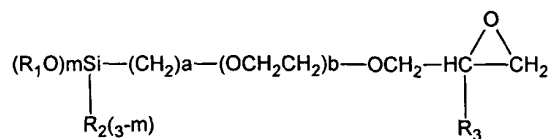


What is claimed is:

1. A method of coating an optical element comprising:
washing an optical element with a high pressure water spray;
drying the optical element;
applying an aqueous organic solvent coating to at least one surface of the optical element while the optical element spins;
thermally precuring the aqueous organic solvent coating to a tack free state; and
thermally curing the aqueous organic solvent coating.
2. The method of coating an optical element according to claim 1, wherein the aqueous organic solvent coating comprises hydrolysis products and partial condensates of an organic functional silane, a tetrafunctional silane, a multifunctional compound, and an amount of water sufficient to hydrolyze the epoxy functional silane and tetrafunctional silane.
3. The method of coating an optical element according to claim 2, wherein the multifunctional compound is multifunctional carboxylic acids, multifunctional anhydrides and combinations thereof.
4. The method of coating an optical element according to claim 2, wherein the multifunctional compound is multifunctional anhydrides.
5. The method of coating an optical element according to claim 1, wherein the thermal procuring is less than 10 minutes at a temperature range of about 150°F to 300°F.
6. The method of coating an optical element according to claim 1, wherein the thermal curing is performed at a temperature range of about 150°F to 400°F.
7. The method of coating an optical element according to claim 1, wherein the organic functional silane is selected from a group consisting of epoxy silanes, amino silanes, hydroxyalkyl silanes, carboxylic acid functional silanes, and isocyanate functional silanes.

8. The method of coating an optical element according to claim 6, wherein the epoxy silane compound containing at least one epoxy group and at least two alkoxy groups directly bonded to the silicon atom of the molecule has the formula:



wherein R₁ is an alkyl or alkoxy alkyl group having 1 to 4 carbon atoms; R₂ is an alkyl or aryl group having 1 to 6 carbons atoms; R₃ is hydrogen or methyl group; m is 2 or 3; a is an integer from 1 to 6; and b is 0, 1 or 2.

9. The method coating an optical element according to claim 7, wherein the silane compound containing at least one epoxy group and at least two alkoxy groups directly bonded to the silicon atom of the molecule is selected from the group consisting of 3-glycidoxypropyltrimethoxysilane, 3-glycidoxypropyltriethoxysilane, 3-glycidoxypropylmethyldimethoxysilane, 3-glycidoxypropylmethyldiethoxysilane, 3-glycidoxyethoxypropylmethyldimethoxysilane, and mixtures thereof.

10. An optical element comprising:

a lens substrate; and

an aqueous organic solvent coating on at least one side of the optical substrate having been applied by spin coating, followed by a thermal pre-cure, followed by a thermal cure.

11. The optical element of claim 10 wherein the aqueous organic solvent coating comprises hydrolysis products and partial condensates of an organic functional silane, a tetrafunctional silane, a multifunctional compound, and an amount of water sufficient to hydrolyze the epoxy functional silane and tetrafunctional silane.

12. A method of coating an eye element comprising:

providing a thermally curable coating;

spin coating one surface of said eye element with said thermally curable coating;

thermally pre-curing the coating to a substantially tack-free state;

curing the coating to its final state.

13. A method of coating according to claim 12, wherein said thermal pre-cure lasts no longer than about ten minutes at a temperature in the range of about 150°F to 300°F.

14. A method of coating according to claim 12, wherein the thermal curing lasts for a predetermined period of time at a temperature in the range of about 150°F to 400°F.

15. A method of coating according to claim 12, wherein the thermally curable coating provided is an aqueous organic solvent coating comprises hydrolysis products and partial condensates of an organic functional silane, a tetrafunctional silane, a multifunctional compound, and an amount of water sufficient to hydrolyze the epoxy functional silane and tetrafunctional silane.